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ABSTRACT

This paper defines active citizenship as a fundamental aim of democratic society that enables all citizens to participate as fully as possible in cultural, economic, political, and social life. Adult education is recommended as a forum for promoting active citizenship and, since participatory democracy is learned through practice, should be an experience in participatory democracy. The author argues that adult classes in any curriculum in this case mathematics should have as an explicit objective the acquisition of knowledge and skills that contribute to active citizenship. Examples of pertinent numeracy skills include understanding financial calculations for school governors; interpreting tax proposals; and obtaining and analyzing information for community groups. The author suggests that having the following attributes promotes active citizenship: (1) the ability to negotiate and cooperate with others, deal with difference and conflict, listen constructively, obtain information, and voice opinions and ideas; (2) the confidence to be proactive, have independent opinions, act independently, take responsibility, and assume one's voice will be heard and taken into account; and (3) know how society is structured, how local and national government works, the basic ideas of political parties and political philosophies/ideologies. The document contains 17 references. (MO)

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All for One and One for All: Citizenship and Maths Education

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What Is Active Citizenship?

The concept of citizenship has a long history but still remains problematic. Newton (1999, p. 4) argues that it can be viewed as a set of ordered relations between people that seek to avoid the Hobbesian "state of nature" where life is "solitary, poor, nasty, brutish and short." This perspective depicts a social contract aimed at promoting security and well being within the community and necessarily deals with how individuals ought to act to achieve such an end. It can then be viewed as effective, skilled, and knowledgeable public-spirited work to solve common problems (Merrifield 1997).

The concept of citizenship underpins that of democracy but, in British society at least, "citizenship" has until recently been an unfamiliar notion. The Commission on Citizenship (1990) found that the word was not in common use and, even when used, it had a diversity of meanings. Crewe and Searing (1996) supported some of the findings of the Commission and found that although the British understand the concept, they do not define themselves as citizens. When they do talk about citizenship, it is in terms of civic engagement, i.e., participation in the institutions of civil society. Rather than voting and other forms of electoral participation, the British see citizenship as, for example, working in local voluntary associations. So from a British perspective, citizenship is involvement in social networks, in the groups, organisations, and voluntary associations that connect citizens with the life of their communities. Motivations to engage in other aspects of citizenship, such as attention to political and public issues, are reinforced through participation in informal groups and voluntary organisations and engagement in civic and communal activities from good neighbouring to charity giving to more formal socio-political activity.

A reasonably representative definition of citizenship can be taken as how an individual activates him- or herself to be able to consciously influence their own situation and the situation of others in a democratic society (Bron, 1996). Crewe and Searing (1996) argue that the key components of citizenship are civic engagement and public discourse. This links very closely with Putnam's notion of "social capital" (1993) which has as a major component the social networks of individuals, groups, and organisations.

Active Citizenship Is on the Agenda Now

It is arguable that the fundamental aim of a democratic society is to enable all citizens to participate as fully as possible in cultural, economic, political, and social life, and the active engagement of citizens is part of the broader concept of citizenship of ensuring that people can take the project of shaping the future into their own hands. However, there is a growing concern that there is a democratic deficit and a fading of citizenship values and practices (Thorne, 1998). In the US, Putnam (1995a, 1995b) argues that there has been erosion, over the last thirty years, of the propensity of individuals to associate together on a regular basis, trust one another and engage in community affairs and a weakening of the civic engagement. However, despite the evidence that aggregate levels of social capital have not declined to an appreciable sense in Britain in recent years and that civic engagement also seems to remain relatively high (Hall, 1999) and similar positive results for other European countries (see van Deth, Maraffi, Newton, & Whiteley, 1999), there are still fears that there is a decline in social capital in Britain and elsewhere in Europe. This has led to calls for an increased emphasis on combating social exclusion and the encouragement of an active and engaged citizenry possessing the skills and confidence to contribute as fully as possible. The 1997 European Commission Report *Learning for Active Citizenship* focuses on learning for citizenship as one of the key challenges facing the Union in the years to come. The Report argues that having the right to participate is not equivalent to doing so in practice nor being equipped to do so on equal terms. It asserts that active citizenship is being empowered to handle the practice of

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participatory democracy and so calls for opportunities to learn a..d practice autonomy, responsibility, co-operation, and creativity and develop a sense of self worth and expertise in confronting and tolerating ambiguities and oppositions. There is, however, a strong caveat to any discussion of adult education's contribution to a more active citizenry. Many social factors such as poverty, ill health, gender, race, or age may disadvantage parts of the population and prevent their participation. Structural inequality impedes participation.

Issues Raised for Adult Education

But however desirable active citizenship is to leaders throughout Europe, many individuals lack relevant information, skills, and confidence as well as access to opportunities for participation and engagement. It is necessary, therefore, to identify and develop sites for affective and pragmatic as well as cognitive learning

However, the number of adults who willingly choose curricula in civics or even politics or economics is small (Field, 1995). An alternative approach is to locate sites for learning citizenship skills not in "civics" classes but intrinsically and extrinsically in the adult education curriculum. This would mean that whether adults came to learn history, politics, literature, or, as we are interested in here, maths then the curriculum would have as an explicit objective the acquisition of knowledge and skills which contribute to active citizenship. We will first look at some aspects of the content of the numeracy curriculum. We will then consider the skills of citizenship suggesting that these are fundamentally transferable. These skills can be learnt in any adult classroom then "transferred" into a more active participation in society.

Active Citizenship Involves Numeracy

To suggest the content of an adult numeracy course which would contribute to active citizenship requires an examination of the citizenship situations where adults need numerical skills. Some examples are given below but there are many more.

Thorstad (1992) identified school governors as a prime example of citizens who work responsibly and without pay on behalf of the community. Some people are deterred from standing for governorship in the first place due to lack of knowledge or confidence in financial matters, and even those who are elected may be making decisions on shaky ground due to similar inadequacies. The numerical skills identified as being of most use to a governor were the ability to: follow an argument that includes (especially large) numbers; do a quick estimation; check other people's calculation; and calculate accurately with speed and agility but using a calculator. This is a mismatch with numeracy practice encouraged in many formal classrooms. As a result, adults were insecure with mathematical skills half-remembered from school or informally learnt as an adult or a confusion of the two. The result was that some non-specialist governors, including parents, did not take an active part in crucial debates or were being asked to rubber-stamp financial decisions made by the financial subcommittee.

Another study into active citizenship investigated the numeracy issues raised by the introduction of the Council Tax (Hind, 1993b). Hind found that the resultant inability to interpret numerical information led to a lack of knowledge of new developments such as the Council Tax and a failure to understand its implementation. This meant that the citizen did not have the requisite information to make decisions about, for example, tax payments, the fairness or otherwise of the tax, or how to claim for benefits or discounts. This affects the ability of the citizen to operate effectively in a democratic society.

Voluntary bodies, pressure groups, and women's organisations may require citizens to produce or seek out data then analyse it and understand the context where it was produced. Hence certain mathematical skills are needed for critical citizenship and include: how to obtain information produced but not published; methods for the production of information at a small scale level in the community; and the interpretation of information from other sources or one's own research (Evans, 1990). An important skill required in the struggle for critical citizenship is access to and a grasp of official statistics from which we obtain most of our information about government spending, unemployment, poverty, and so on. This access takes place mainly through the media

(one has only to think of television news) but in the context of the current political, social, and economic climate. These factors have an immense implication for the accuracy of information disseminated.

However, the numeracy curriculum is currently constructed around the immediate personal or work related curriculum of the individual learner or based on the school mathematics curriculum. It could be extended, as has been done with literacy, to integrate numeracy skills with issues of public concern such as school budgets or new tax proposals. Adults' expressed needs should not be ignored and any widening of the curriculum should not replace the instrumental goals and self-development requirements of the learner but enhance these. Adults can be encouraged to recognise and value the mathematics learning that takes place in all facets of their everyday life. The role of the adult as citizen, in addition to worker, can provide a wealth of suitable material for accessible everyday "really useful" knowledge.

The data for critical explorations of important social issues could come from newspapers, official Government statistics, or the newsletter of the Radical Statistics Group (RSG). The Winter 1995 edition of the RSG's Newsletter contains useful starting points for investigations such as "The unofficial guide to official health statistics," "The Department of the Environment's index of local conditions: don't touch it," and "Retiring into poverty." A statistics literacy course could aim to convey basic knowledge such as an understanding of terms, like average, percentages, etc., graphs, and the logic behind certain concepts such as why averages are used. Most importantly, it could aim to encourage learners to think statistically and appreciate that the application of statistics is valuable (Gal, 1996).

Abilities Required for Citizenship

But it is not sufficient to just consider the content of the curriculum. Other skills and abilities are required for active citizenship. The concept of citizenship is a complex and slippery one. Crewe and Searing (1996) suggests that good citizenship involves two factors: civic engagement and public discourse. "Civic activity," "being an active citizen," or "civic engagement" refers to participation in any significant way in community or social activities and/or involvement in community or social organisations. "Public discourse" refers to discussions in private and public settings ranging from casual conversations to serious deliberations on public affairs topics from community concerns to party political matters. To be a good citizen in the above terms requires an individual to possess certain abilities, confidences, and knowledge. Drawing on these and other definitions from the literature, this paper suggests that the following lists of attributes promote active citizenship—having:

1. the ability to
- negotiate and co-operate with others;
- deal with difference and conflict;
- listen constructively to others;
- obtain information (e.g., from libraries, the Web, authorities, public meetings etc.); and
- voice ideas and opinions.

2. the confidence to
- be proactive;
- have independent opinions;
- act independently if they think it is right;
- take responsibility; and
- assume that their voice will be heard and taken into account.

3. the following knowledge:
- how society is structured;
- how local government works;
- how national government works;
- the basic ideas of the main political parties; and
- political philosophies/ideologies.

A group of adult learners were asked to evaluate the skills and confidence that enhance active citizenship that they possessed (Benn, 2000). The results indicated a lack of perceived ability to deal with difference and in voicing ideas and opinions. The most actively demanding skills (dealing with difference and conflict; voicing ideas and opinions; negotiating and co-operating with others; obtaining information; and listening constructively to others) are those that fewer people felt they had. There is a corresponding higher confidence in the more passive abilities. When asked where they had acquired these abilities, adult education scored well on developing skills in listening constructively, finding information, and having and voicing ideas and opinions. It scored less well on the other perhaps more active abilities.

Lessons for Adult Maths Education

This paper has argued that citizenship needs to be learnt, that it is not only about rights but also about the everyday participation in our society, and that this participation is both a measure and a source of society's success. The challenge to our society is to create ways in which citizens can participate fully and effectively in conditions where all who wish can become actively involved, can understand and participate, can influence, persuade, campaign, and "whistleblow," and be involved in decision-making. The challenge for adult educators is to contribute to this vision (Benn, 1997).

Citizenship has to be learned like any other skill. Participatory democracy is learned through practice and therefore the adult education experience should itself be an experience of participatory democracy. In this way it can be an affective as well as cognitive learning experience that both citizenship and adult education are "for us" and not just "for other people." What does seem clear is that if maths adult educators have a serious commitment to developing an active citizenry, then they might do well to consider their own list of citizenship skills perhaps using the ones given here as a starting point. The curriculum, pedagogy, and approach to the programme could then be constructed with the aim of developing these skills. That is not to say that this should take precedence over the "subject." If adults come to learn maths or gain a particular qualification, then that should continue to be the prime outcome of the course. It is also important to note that in Britain funding is linked primarily to qualifications and, in an assessed course, the prescription of the syllabus almost inevitably brings limitations. Nevertheless, within these constraints many adult educators do still have a freedom denied to other parts of the education sector and within that freedom might lie the potential to contribute to a more democratic society.

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